

**REMARKS**

By this amendment, claims 1-20 are pending, in which claims 1-2, 6, 10-11, and 15 are currently amended to clarify antecedent basis, and claims 19-20 are newly presented. No new matter is introduced.

The Office Action mailed December 4, 2003 rejected claims 1, 4, 6-10, 13, and 15-18 under 35 U.S.C. § 102 as anticipated by *Chang et al.* (US 5,870,753), and claims 2-3 and 11-12 as obvious under 35 U.S.C. § 103 based on *Chang et al.* (US 5,870,753) in view of *Bennett* (US 6,014,733). This rejection is respectfully traversed because neither *Chang et al.* alone nor in combination with *Bennett* disclose, teach, or otherwise suggest the limitations of the claims.

For example, independent claims 1 and 10 recite:

if the XREF pointers array includes a pointer associated with said reference  
located in the longer-duration memory, then following said pointer to  
locate said instance within said shorter-duration memory.

As another example, independent claims 6 and 15 recite:

to dereference said reference located in the longer-duration memory.

These features are not shown in *Chang et al.* Rather, *Chang et al.* is directed to a method and apparatus for maintaining “multiple metastates for a persistent object without increasing the size of the object reference” (Abstract; col. 2:13-15). To do this, *Chang et al.* discloses providing each persistent object with a key **78** (FIG. 7) that is used to index a reference data table in server memory **80**, which includes a pointer **77** to a persistent object **72**. The persistent object **72** itself encapsulates the persistent object’s state **73'** along with a filename **71'** indicating where to retrieve the state **73'** from persistent storage **74'** (see generally, FIG. 7 and col. 5:5-20). In FIG. 20 and accompanying text in col. 13:5-20, *Chang et al.* details a flowchart in which if the object is not in memory (step **264**) it is reactivated in memory (steps **266–272**).

*Chang et al.*, however, does not disclose “reference located in the longer-duration memory” recited in all independent claims. In fact, *Chang et al.* fails to show any reference located in persistent storage 74' at all. In fact, *Chang et al.* at best shows the opposite direction: the object reference key 78 in server memory 70 points to state 73' in persistent storage 74' not the other way round.

*Bennett*, applied only to claims 2-3 and 11-12, is directed to a method for creating a “perfect hash” and also does not show the above-quoted limitations of the claims.

Therefore, the present application, as amended, overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at 703-425-8516 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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Date

  
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